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Notice of Allowability

Application No.

10/724,684

Examiner

Ly D. Pham

Applicant(s)

ITO, YUTAKA

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12 January 2005 and 01 March 2005.
2. ☒ The allowed claim(s) is/are 7-12.
3. ☒ The drawings filed on 01 December 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/077,817.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 12/01/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


HOAI HO
PRIMARY EXAMINER

DETAILED ACTION

1. Applicant's Information Disclosure Statement, IDS, filed December 01, 2003 has been considered by the Examiner.

Election/Restrictions

2. Claims 1 and 3 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on January 12, 2005.

3. This application is in condition for allowance except the following formal matter.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Gregory E. Montone (reg. no. 28,141) on March 1, 2005.

The application has been amended as follows:

- i. **Claims 2 and 3 are cancelled** for being drawn to non-elected invention.

Election was made without traverse as indicated above. Applicant has the right to file divisional application on subject matter covered by these claims.

- ii. **Lines 1 – 6** of claims 7 – 9 are replaced with the following:

A semiconductor apparatus formed on one semiconductor substrate, comprising:

a plurality of memory cells, each including a capacitor having first and second electrodes for holding an information voltage, a MOSFET having a gate connected to the first electrode of the capacitor and having the information voltage of the capacitor supplied to the gate, and a writing transistor for supplying the information voltage to the capacitor;

- iii. In **line 7** of claims 7 – 9, the comma “,” has been removed.

Allowable Subject Matter

5. Claims 7 – 12 are allowed.
6. The following is an examiner's statement of reasons for allowance:

The prior arts (for instance US Pat 6,452,858) teach a semiconductor apparatus formed on one semiconductor substrate, comprising:

a plurality of memory cells, each including a capacitor having first and second electrodes for holding an information voltage, a MOSFET having a gate connected the

first electrode of the capacitor and having the information voltage of the capacitor supplied to the gate, and writing transistor for supplying the information voltage to the capacitor;

a plurality of word lines connected to the second electrode of the capacitor and a gate of the writing transistor; and

a plurality of bit lines disposed in a direction orthogonal to the word lines for receiving a writing voltage.

However, the prior arts did not teach the semiconductor apparatus, further comprising:

a plurality of bit lines disposed in a direction orthogonal to the word lines for receiving a writing voltage and a source output of the MOSFET,

wherein when the semiconductor apparatus is on a first mode, ..., when the semiconductor apparatus is on a second mode, ..., when the semiconductor apparatus is on the first and second modes,

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Conclusion

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8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
9. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02(b)).
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly D. Pham whose telephone number is 571-272-1793. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoai Ho can be reached on 571-272-1777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ly D Pham 
March 1, 2005


HOAI HO
PRIMARY EXAMINER